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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/826,976      | 05/02/2005  | Jian W. Mulligan     |                     | 2265             |

7590 02/11/2008  
William Mulligan  
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| EXAMINER |
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GENNARO, JR, ANTHONY J

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| ART UNIT | PAPER NUMBER |
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4136

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02/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/826,976

**Applicant(s)**

MULLIGAN, JIAN W.

**Examiner**

Anthony Gennaro, Jr.

**Art Unit**

4136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5 is/are rejected.  
7) ☒ Claim(s) 6-12 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 02 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### *Claim Objections*

3. **Claims 6-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.**

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (US Patent 4,870,796) in view of Tonyan (US Patent Application Publication 2006/0185267 A1).**

Hart discloses [claim 1] a composite roof and wall system, three-in-one: fireproof, insulation and waterproofing, comprising an expanded polystyrene foam board (10) adhered onto the existing roof deck or wall (14); the use of a tough waterproofing membrane (16) coating as the adhesive to glue onto the existing roof or wall substrate and connected with each other by construction tape, such as butyl tape, or by using the waterproofing membrane coating to seal the seams between the foam boards. *(The phrase "modified bitumen" does not appear in the above sentence because Hart does not disclose a tough waterproofing membrane made specifically of modified bitumen. Hart does disclose a tough waterproofing membrane comprised of roofing felt which is an equivalent waterproofing material.)* The waterproofing membrane is fully brushed, rolled or sprayed over the foam boards with a mesh material (Hart, 20) placed over said tough waterproof membrane coating for reinforcement. Hart does not disclose a composition of cement, clay, perlite, sand, etc. that forms a tough cover placed over the mesh by brushing or rolling or spraying onto said system to protect it from fire, physical and weather damages. Tonyan discloses (See Fig. 6B) a composition of cement, clay, perlite, sand, etc. (140) that forms

a tough cover placed over the mesh by brushing or rolling or spraying onto said system to protect it from fire, physical and weather damages. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide a composition of cement, clay, perlite, sand, etc. that forms a tough cover placed over the mesh by brushing or rolling or spraying onto said system to protect it from fire, physical and weather damages disclosed in Hart in view of the teachings of Tonyan. The motivation for doing so would have been to provide a durable top layer of the roof system.

Tonyan (See Fig. 6B) also discloses the use of a tough waterproofing membrane (136) coating (134) as the adhesive to glue onto the existing roof or wall substrate and connected with each other by construction tape, such as butyl tape, or by using the waterproofing membrane coating to seal the seams between the foam boards (130). *(The phrase “modified bitumen” does not appear in the above sentence because Tonyan does not disclose a tough waterproofing membrane made specifically of modified bitumen. Tonyan does disclose a tough waterproofing membrane comprised of asphalt, which is an equivalent waterproofing material.)*

**Regarding claim 2,** Hart discloses a composite roof and wall system, three-in-one: fireproof, insulation and waterproofing, comprising according to claim 1 wherein said expanded polystyrene foam board (10) must be rigid and non-flammable and is between 2 inches to 8 inches in thickness, placed on the surface of said tough waterproof membrane coating freshly and well brushed or rolled or sprayed onto the surface of the existing roofs or walls as the first waterproofing coating.

**Regarding claim 3**, the combination of Hart and Tonyan discloses a composite roof and wall system, three-in-one: fireproof, insulation and waterproofing, comprising, according to claim 1 wherein said tough waterproofing material is made of modified asphalt emulsion with natural and synthetic resins, applying two to three times onto the roof or wall surface using 0.125 to 0.25 gallon per square yard.

**Regarding claim 4**, Hart discloses a composite roof and wall system, three-in-one: fireproof, insulation and waterproofing, according to claim 1 wherein said reinforcement medium mesh (16) is woven polyester type of mold and mildew free and non-flammable or non-combustible having a weight between 0.01 to 1 ounces per square yard depending on the needs.

**Regarding claim 5**, the combination of Hart and Tonyan discloses a composite roof and wall system, three-in-one: fireproof, insulation and waterproofing, according to claim 1 wherein said lightweight tough coat (134, 138 and 140) comprising cement, clay, silicate (perlite), sand, etc., mixed with water to make it into paste form at job site and having a thickness of said paste between 0.125 inches to 0.75 inches, using said lightweight tough coat mixture between 3 to 10 pounds per square yard and allowing twenty days or so to be fully cured.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gennaro, Jr. whose telephone number is (571) 270-5217. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Allen Shriver can be reached on (571)272-6698. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. G./  
Examiner, Art Unit 4136

/J. Allen Shriver/  
Supervisory Patent Examiner, Art Unit 4136